



# UNITED STATES PATENT AND TRADEMARK OFFICE

201  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,291	01/27/2004	Brian D. Hayes	60,130-1907; 03MRA0279	2559
26096	7590	08/09/2006		EXAMINER
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009			STORMER, RUSSELL D	
			ART UNIT	PAPER NUMBER
			3617	

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/765,291	HAYES ET AL.
Examiner	Art Unit	
Russell D. Stormer	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1)  Responsive to communication(s) filed on 20 July 2006.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4)  Claim(s) 1-22 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 11-15 is/are allowed.

6)  Claim(s) 1,10,16-18,21 and 22 is/are rejected.

7)  Claim(s) 2-9, 19, 20 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
    Paper No(s)/Mail Date \_\_\_\_\_

4)  Interview Summary (PTO-413)  
    Paper No(s)/Mail Date. \_\_\_\_\_

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_\_

***Response to Request for Reconsideration***

1. Applicant's request for reconsideration of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. A new action on the merits follows.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Stech.

Stech (US Patent 5377736; cited by Applicant) shows an axle 12 driven by and connected to a differential 15 and including a bore and a sealing assembly which cooperates with the first end of the bore to provide a sealed air path extending from the air source 38 to the tire assembly.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 10, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stech in view of Hertel et al.

For the wheel axis of Stech to be vertically higher than the axle axis, and therefore be parallel to and spaced from the axis of the axle, would have been obvious as taught by Hertel et al as this would provide a lower center of gravity for the vehicle.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stech in view of Hauser et al (newly cited).

For one of the axles of Stech to be substantially longer than the other would have been obvious as taught by Hauser et al depending on the type of vehicle, the positioning of the engine and the transmission, etc., as is well-known in the art.

7. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stech in view of Schultz et al (cited by Applicant; newly applied)).

The details of the sealing assembly at the end of the axle of Stech are not shown.

Schultz et al teaches a tire inflation system comprising a channel 4 in an axle which connects to a fitting (80, 90, 100) which has a further air passage 36. Seals 34 may be provided between the axle and the fitting (80, 90) to seal the air passage. As shown in figures 1 and 2, the seals may be received within the laterally extending bore 6 of the axle.

From this teaching it would have been obvious for the seal assembly of the axle of Stech to be mounted to the end of the wheel shaft and received within the laterally extending bore as this would provide an alternate arrangement for sealing the axle and wheel end system.

***Allowable Subject Matter***

8. Claims 2-9, 19, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. Claims 11-15 are allowable over the prior art of record.

***Response to Arguments***

10. Applicant's arguments filed March 13, 2006 and July 20, 2006 have been fully considered but they are not persuasive.

Claims 1, 10, 16, 17, 18, 21, and 22 have been regrouped using the same rejections and same prior art to overcome errors in the previous office action.

Stech provides a seal assembly comprising the seals 40 and surfaces 50 and 52. These seals prevent air from escaping as it travels from the fitting 38 to the air passage 13 and on through the axle. Further, fitting 70 is connected to the first end 21 of the axle in what would have to be an air-tight manner. Therefore, although the seals 40 and the surfaces 50, 52 do not contact the first end of the axle, the sealing assembly comprising parts 40, 50, and 52 cooperates with the first end 21 of the axle to provide a sealed air flow path. The term "cooperating with" as used in claim 1 is considered to be sufficiently broad that it allows the use of any sealing assembly which helps seal the air flow passage whether or not the assembly contacts (or is even located near) the first end of the axle.

Applicant argues that the first end 21 of Stech as defined by the Examiner is not the end of the shaft that is in communication with the air source. This argument is considered to be incorrect because the entire air line from the fitting coupled to the air source to the tires would be in communication with the air source.

The rejection of claims 10 and 16 now includes the Hertel et al reference to show the drive axle axis being spaced from and parallel to the wheel axis. The reasoning set forth for the motivation to do this is a logical reason, and it is well-known to raise or lower vehicles with respect to their axles. The lowering of the center of gravity of the vehicle of Stech would have been obvious as desired by one of ordinary skill in the art to change the looks, handling, or capabilities of the vehicle.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

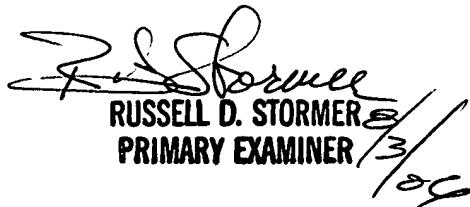
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571) 272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joe Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

\*\*\*

8/3/06

  
RUSSELL D. STORMER  
PRIMARY EXAMINER  
8/3/06